

AMENDMENT TO CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A process to cool hot gas from a partial oxidation reactor that is fluidly connected at its lower end to a horizontal duct, which horizontal duct is fluidly connected to a tube having a main tubular part in a vessel and an upstream tubular part positioned in said horizontal duct and sealingly connected to a tube sheet that is also positioned in said horizontal duct, by passing the hot gas through said tube, wherein (i) the exterior of said main tubular part is cooled by an evaporating liquid cooling medium flowing freely inside said vessel and around said tube, (ii) the upstream tubular part and the front of said tube sheet is cooled by passing a mixture of fresh liquid cooling medium and a defined part of the liquid cooling medium of activity (i) along the exterior of the upstream tubular part and the front of said tube sheet, and (iii) wherein the mixture of fresh liquid cooling medium and the defined part of the liquid cooling medium after being used to cool the upstream tubular part is used in activity (i) as cooling medium.
2. (Previously presented) The process according to claim 1, wherein the volume ratio of fresh liquid cooling medium and the defined part of the liquid cooling medium as extracted from activity (i) is between 1:4 and 4:1.
3. (Previously presented) The process according to claim 2, wherein the upstream tubular part is cooled by passing fresh liquid cooling medium and a defined part of the liquid cooling medium of activity (i) along the exterior of the upstream end of the tube co-current with the gas flowing within the tube.
4. (Previously presented) The process according to claim 3, wherein the hot gas has a temperature of between 1300 and 1500 °C and a temperature of between 240 and 450 °C after being subjected to the process.
5. (Previously presented) The process according to claim 4, wherein the hot gas is obtained in a gasification process, comprising the partial oxidation of a gaseous or liquid hydrocarbon feedstock to a mixture comprising mainly hydrogen and carbon monoxide.